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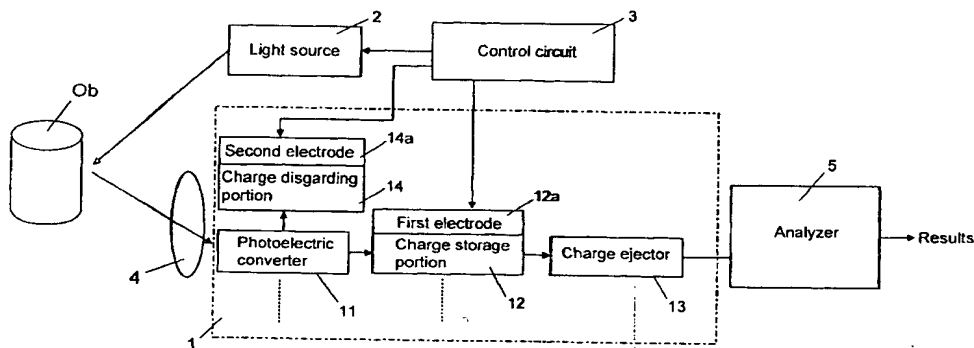
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(54) Title: LIGHT RECEIVING DEVICE WITH CONTROLLABLE SENSITIVITY AND SPATIAL INFORMATION DETECT-  
ING APPARATUS USING THE SAME



(57) Abstract: A spatial information detecting apparatus using an intensity-modulated light has a photoelectric converter for receiving a light provided from a space, into which a light intensity-modulated by a predetermined modulation signal is being irradiated, and generating amounts of electric charges corresponding to an intensity of received light; charge discarding portion having an electrode for removing dispensable charges from the electric charges generated by the photoelectric converter according to a voltage applied to the electrode; charge storage portion for storing signal charges from the electric charges generated by the photoelectric converter; control circuit for controlling the voltage applied to the electrode at a timing synchronized with a period of the modulation signal to change a ratio of the signal charges stored in the charge storage portion to the electric charges generated by the photoelectric converter; charge ejector for outputting the signal charges from the charge storage portion; and an analyzer for determining spatial information from an output of the charge ejector. According to this apparatus, since the dispensable charges are previously removed from the electric charges generated by the photoelectric converter by the charge discarding portion, it is possible to improve S/N ratio and accurately determine the spatial information.